

## CHAPTER 8.0

### Glossary

ablation	removal of material from the surface of an object by vaporization, chipping, or other erosive processes
ad valorem	tax based on the value of real estate or personal property
agglomerate	cluster of primary particles held together by weak physical interactions
aggradation	increase in land elevation due to the deposition of sediment
alluvial fan	fan-shaped deposit formed where a fast flowing stream flattens, slows, and spreads, typically occurring at the exit of a canyon onto a flatter plain
alluvial soils	loose, unconsolidated (not cemented together into a solid rock) soil or sediments
anisotropic aquifer	preferential flow direction in soils and other geologic materials
APE	area in which impacts are planned or are likely to occur
aqueous	solution in which the solvent is water
aquitard	saturated, but poorly permeable, bed that impedes groundwater movement and does not yield water freely to wells
argillaceous matrix	property of aquifer systems displaying different hydrological properties in different directions
Arkosic sandstone	sandstone consisting of grains of feldspar and quartz cemented by a mixture of quartz and clay minerals
assay	testing of a metal or ore to determine its ingredients and quality
autonite	yellow-greenish fluorescent mineral with a high content of uranium
baseline	conditions existing prior to a specific activity
berm	man-made mound of earth serving as a border or barrier
biogenic	produced or brought about by living organisms
boneyard	storage area
bulkhead	structure or partition to resist pressure or shut off water
coffinite	uranium mineral

concomitant	happening or existing along with or at the same time as something else
conglomeratic	anything composed of heterogeneous materials or elements
counter current decantation (CCD)	thickener circuits used to recover soluble metal as pregnant liquor solution from ore leach residue
decline	spiral tunnel which circles either the flank of the deposit or circles around the deposit
degradation	process of declining to a lower state
cumulative effect	impact on the environment which results from the incremental impact of the action when added to other past and present actions and reasonably foreseeable future actions regardless of what agency (federal or non-federal) or person undertakes such actions (40 CFR 1508.7) and (40 CFR 1508.25)
desert bajhada	series of coalescing alluvial fans along a mountain front
discing	to work (soil) with a disk harrow, breaking up turned soil resulting from plowing
epeirogenic uplift	broad regional upwarp of the cratonic (stable interior) portions of continents
ephemeral	flowing only during and immediately after precipitation
fluvatile	processes associated with rivers and streams and the deposits and landforms created by them
geomorphic	relating to the surface features of the earth
Geonet	International on-line services network
glucocorticoid	anti-inflammatory steroid like compounds that are produced by the adrenal system
graminoid	herbaceous plants with narrow leaves growing from the base such as grass
heap leach	process to extract precious metals, copper, uranium, and other compounds from ore via a series of chemical reactions that absorbs specific minerals and then re-separates them after their division from other earth materials
hydrologic	science dealing with the occurrence, circulation, distribution, and properties of the waters of the earth and its atmosphere
in-situ leaching	mining process used to recover minerals such as copper and uranium through boreholes drilled into a deposit
ion exchange	exchange of ions between two electrolytes or between an electrolyte solution and a complex for purification, separation, and decontamination
leasable minerals	minerals on public lands where the land is leased to individuals for their exploration and development and include fluid minerals and solid minerals
lek	area where sage grouse males gather to engage in competitive displays that may entice visiting females

lithology	study of the general physical characteristics of rocks
lixiviant	liquid medium, either acid or base in nature, used to selectively extract target metals from an ore or mineral by assisting in rapid and complete leaching
locatable minerals	minerals that may be “located” with a mining claim under the General Mining Law of 1872 and include but are not limited to gold, silver, platinum, precious gems, uranium, bentonite, chemical grade limestone, chemical grade silica sand and gypsum
loam	easily worked fertile soil consisting of clay, sand, and silt and sometimes organic
milling	process that separates uranium from other minerals in the host rock
mucking	to remove muck or dirt from a mine
mudstone	dark sedimentary rock formed from consolidated mud and lacking the layered structure of shale
NRC License Area	area that contains the uranium processing facility that would be external to the Permit to Mine 381C mine permit boundary but within the Project Area
NRC Restricted Area	area within the NRC License Area fenced with a chain link fence topped with barbed wire
palustrine	marsh or swamp
paralithic material	weakly cemented
perennial	occurring continuously throughout a year
phreatic surface	level of the water table below which all materials are considered saturated
potable	liquid suitable for drinking
potentiometric surface	hypothetical surface representing the level to which groundwater would rise if not trapped in a confined aquifer; water table in an unconfined aquifer
Precambrian	supereon in the geologic time scale that spans from the formation of earth around 4,600 million years ago to the beginning of the Cambrian Period, approximately 542 million years ago
pregnant leach solution	uranium-rich aqueous solution
radionuclide	nuclide that is radioactive
raffinate	portion of an original liquid that remains after other components have been dissolved by a solvent
reagent	substance or compound that is added in order to bring about a chemical reaction
regeneration	regeneration mixes strong sulfuric acid or strong sodium hydroxide in a regeneration mixer

residuum	substance or thing that remains or is left behind, in particular, a chemical residue
rilling	channel made by a small stream.
ripping	mechanical turning of the soil with a plow or other device
room and pillar	mining system in which the mined material is extracted across a horizontal plane, creating horizontal arrays of rooms and pillars.
sandstone	sedimentary rock consisting of sand or grains cemented together
shale	rock predominantly composed of clay-sized particle and characterized by parking along bedding planes
Schroeckingerite	yellowish secondary mineral
Scintillometer	a scientific device used to measure small fluctuations of the refractive index of air caused by variations in temperature, humidity, and pressure
scoping	an open process for determining the scope of the issues to be addressed by a study
sedimentologic	science that deals with the description, classification, and origin of sedimentary rock
sodium adsorption ratio	measure of the suitability of water for use in agricultural irrigation, as determined by the concentrations of solids dissolved in the water
solvent extraction	method for separating a substance from one or more others by using a solvent
spoils	dirt, rocks, plants removed before a resource can be mined
stratigraphy	study of rock strata, especially the distribution, deposition, and age of sedimentary rocks
straw wattles	tube-shaped erosion-control devices filled with straw, flax, rice, coconut fiber or other materials
stream channel	physical confine of a stream, consisting of a bed and stream bank
subbasin	subset of a subwatershed
subsidence	sinking or settlement of the land surface, usually related to vertical downward movement of natural surfaces, although small-scale horizontal components may be present
swell factor	ratio of the weight or volume of loose excavation material to the weight or volume of the same material in place
synclinal	sloping downward from opposite directions to meet in a common point or line
tailings	materials left over after the process of separating the valuable fraction from the uneconomic fraction of an ore

total dissolved solids	all organic and inorganic materials suspended in water that are small enough to remain in the water after filtration
transmissivity	measure of the quantity of water that an aquifer can transmit horizontally
tuffaceous	rock composed of compacted volcanic ash
tuffaceous sandstone	sandstone which contains volcanic ash
uraninite	radioactive, uranium-rich mineral and ore with a chemical composition that is largely $\text{UO}_2$ , but also contains $\text{UO}_3$ and oxides of lead, thorium, and rare earth elements
uranophane	rare calcium uranium silicate hydrate mineral that forms from the oxidation of uranium bearing minerals
watershed	land area that drains into a stream; the watershed for a major river may encompass a number of smaller watersheds that ultimately combine at a common point
yellowcake	product of the uranium extraction process; a stable uranium concentrate powder obtained from leach solutions, in an intermediate step in the processing of uranium ores, and commonly assayed as pounds $\text{U}_3\text{O}_8$ equivalent

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